IN THE CLAIMS

Claims 1-6 (Canceled)

7. (Currently amended) A magnetic recording medium made by forming at least a magnetic layer and an overcoat on a non-magnetic substrate, said overcoat having a surface on which a liquid lubricant of a perfluoropolyether structure is coated, wherein the surface of said overcoat has less that than 0.8 nm average roughness Ra, said overcoat is a layer of diamond-like-carbon with less than 5 nm thickness, and said lubricant coat on said overcoat contains said perfluoropolyether structure having cyclic phosphazene at the end of said perfluoropolyether structure, and said lubricant coat contains more than 30% of a lubricant component having a perfluoropolyether structure containing - (OC₂F₄)_p-, - (OCF₂)_q-, and a structure represented by:

8-9. (Canceled)

(where p=5-36, q=4-30, x=1-5).

10. (Previously presented) The magnetic recording medium according to claim 7, wherein a principal chain of said lubricant component has a perfluoropolyether structure containing $-(OC_2F_4)_p$ -, $-(OCF_2)_q$ -, an end group of said lubricant component has a structure represented by:

 $-(O-C_6H_3(-CF_3))_x$ (A)

(where p=5-36, q=4-30, x=1-5)

and said principal chain has an average molecular weight of 1500-2500.

11. (Currently amended) A magnetic recording medium made by forming at least a magnetic layer and an overcoat on a non-magnetic substrate of a disk, said overcoat having a surface on which a liquid lubricant of a perfluoropolyether structure is coated, wherein the surface of said overcoat has less than 0.8 nm average roughness Ra, said overcoat is a layer of diamond-like-carbon with a thickness in a range of 1.5 - 4.5 nm, and said lubricant coat on said carbon overcoat contains said perfluoropolyether structure having cyclic phosphazene at the end of said perfluoropolyether structure, and said lubricant coat contains more than 30% of a lubricant component having a perfluoropolyether structure containing -(OC₂F₄)_{p-}, -(OCF₂)_{q-}, and a structure represented by:

$$-(O-C_6H_3(-CF_3))_x$$
(A)
(where p=5-36, q=4-30, x=1-5).

12-13.

14. (Previously presented) The magnetic recording medium according to claim 11, wherein a principal chain of said lubricant component has a perfluoropolyether structure containing $-(OC_2F_4)_p-$, $-(OCF_2)_q-$, an end group of said lubricant component has a structure represented by:

$$-(O-C_6H_3(-CF_3))_x$$
(A)

(where p=5-36, q=4-30, x=1-5)

and said principal chain has an average molecular weight of 1500-2500.

15. (New) A magnetic recording medium made by forming at least a magnetic layer and an overcoat on a non-magnetic substrate, said overcoat having a surface on which a liquid lubricant of a perfluoropolyether structure is coated, wherein said overcoat is formed by an ion beam deposition (IBD) method with less than 5nm thickness, and said lubricant coat on said overcoat contains said perfluoropolyether structure having

cyclic phosphazene at the end of said perfluoropolyether structure.

- 16. (New) A magnetic recording medium according to claim 15, wherein said perfluoropolyether structure contains $-(OC_2F_4)_p-, -(OCF_2)_q-, \text{ and a structure represented by:} \\ -(O-C_6H_3(-CF_3))_x \qquad \cdots (A)$ (where p=5-36, q=4-30, x=1-5).
- 17. (New) A magnetic recording medium according to claim 15, wherein said overcoat is formed with ethylene gas concentration of more than 55% employed.
- 18. (New) A magnetic recording medium according to claim 15, wherein the surface roughness after forming said overcoat is within $\pm 10\%$.